

**Brief Summary of OR OA Deliberative Process / Ex. 5**

See briefing document for more detailed information and citations

# Deliberative Process / Ex. 5

The Local Data:

1. Recent NOAA studies document severe shell dissolution in pteropods collected off of the Oregon coast, within 4 miles of state waters. Unpublished data show severe dissolution within 3 miles of state waters.
2. It is well documented that there is a direct correlation between low (undersaturated) aragonite saturation state values of less than one and increased shell dissolution.
3. NOAA recently found aragonite saturation states of less than 1 in 73% of samples collected in Oregon state waters. These values exceed the bounds of natural variation observed in pre-industrial conditions.
4. NOAA data illustrates that aragonite saturation states decline from offshore to onshore, and accordingly the percentage of pteropods experiencing shell dissolution doubles from farther offshore (82 miles outside state waters) towards the coast (3.5 miles outside state waters) to greater than 53%.
5. Studies demonstrate that shell dissolution leads to decreased survivability, and decreased fitness and reproductive success, leading to population level effects, and likely food chain impacts.
6. While pteropod data were collected just outside state waters, aragonite saturation state data were collected within state waters.

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The Pros:

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The Cons:

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